UNIVERSITI TEKNOLOGI MARA

IDE615: APPLIED INDUSTRIAL DESIGN STUDIO 1

Course Name (English)	APPLIED INDUSTRIAL DESIGN STUDIO 1 APPROVED
Course Code	IDE615
MQF Credit	3
Course Description	This course is a self-directed learning and will be supervised by a lecturer in charge. Student will determine their own project interest and expertise upon approval of the lecturer. The final project for the course is intangible and can be explored with other new design frontier. Students will further learn the understanding on research techniques and related issues in integrating the project intention, problem identification and outcome expectation. They will understand and develop their skills in Product Research and Development. This course will allow students to apply their knowledge in Research Methodology and able to propose solutions that has the features to solve the identified problems.
Transferable Skills	Students will be able to manage the project independently with the time frame given and apply all Research and Design Development processes effectively.
Teaching Methodologies	Lectures, Blended Learning, Discussion, Self-directed Learning, Supervision, Project-based Learning, Problem-based Learning
CLO	CLO1 Demonstrate the research techniques in integrating the project intention, problem identification and outcome expectation. CLO2 Demonstrate managerial skills through research and design decision-making within the project plan CLO3 Demonstrate the ability to propose solutions that has the features to solve the identified problems
Pre-Requisite Courses	No course recommendations

Topics
1. Introduction 1.1) Brief on the project schedule
2. Understanding the principles of the project theme 2.1) Explanation on research / theme guideline
3. Understanding the concept of research 3.1) Introduction to research methodology
4. Identifying Research Issue / Research Scope 4.1) 1) Explore and Identify the new design frontier issue 4.2) 2) Establishing research scope
5. Identifying Research Problem(s) 5.1) 1) The existing solution to the issues 5.2) 2) Identify research GAP 5.3) 3) Identifying samples
6. Establishing Research Objective(s) 6.1) Select the most relevant problem(s) to be focus in the research and establish research objective(s)
7. Formulating Research Question(s)/Hypotheses 7.1) Formulate research question(s)/hypotheses based on the established research objective(s)
8. Data Collection, Analysis & Findings 8.1) 1) Propose relevant research method to collect data to seek answer for research question(s) 8.2) 2) Propose relevant method of data analysis and identify findings from the data gathered
9. Establishing Design Concept 9.1) Establish Design Consideration(s) & Design Criteria(s) from the research findings

10. Propose Design Proposal
10.1) Establish Design Direction(s) & Design Consideration(s) from the research findings

Assessment Breakdown	%
Continuous Assessment	100.00%

Details of Continuous Assessment

Assessment Type	Assessment Description	% of Total Mark	CLO
Assignment	Explore and identify new design frontier issues / research scope	10%	CLO1
Assignment	Relevant research method and research process	10%	CLO1
Assignment	Data analysis and findings	20%	CLO2
Final Project	i. Compilation of Final Portfolio ii. Presentation iii. Concept Proposal	60%	CLO3

Reading List

Reference Book Resources

- **Stuart Macey, Geoff Wardle, H-Point 2008, *The Fundamental of Car DEsign & Pack*, Design Studio Press**
- **Muller, W 2001, *Order and Meaning in Design*, LEMMA Publishers**
- **2004, *Emotional Design: Why We Love (or Hate) Everyday Things*, Basic books [ISBN: NORMAN, D. A]**
- **Thompson R 2009, *Manufacturing Process for Design Professional*, Thames & Hudson 181A High Holbon**
- **Gosling, Tim 2015, *Classic Contemporary: The DNA of Furniture Design*, New York**
- **Marcelo M. Soares 2016, *Ergonomics in Design: Methods and Techniques (Human Factors and Ergonomics)***
- **Vivek D. Bhise 2011, *Ergonomics in the Automotive Design Process***

Article/Paper List: This Course does not have any article/paper resources

Other References: This Course does not have any other resources